

CLAIMS

Amend the claims as follows.

1-22. (Cancelled)

23. (Currently Amended) A system, comprising:

a language analysis module configured to parse content of a query into elements and to associate an annotation one or more annotations with respective ones of at least some of the elements, a type of annotation each of the annotations being either canonical or conceptual;

a rules engine coupled to the language analysis module to receive the elements and the annotation annotations, the rules engine configured to perform a first comparison of a first condition of at least one rule from a rules dictionary against the elements and the annotation annotations;

the rules engine configured to perform a second comparison of peripheral information distinct from the content of the query to a second different condition of at least one rule from the rules dictionary;

the rules engine configured to selectively enable an action based on a result of the first comparison and a result of the second comparison; and

a response generator coupled to the rules engine and configured to display information in response to the action;

wherein the action when enabled selects a particular one of a plurality of one or more information retrieval technologies based on the selectively enabled action to produce the information, and wherein the selected information retrieval technology is configured to search content storage via a semantic index to produce at least a portion of the information; and

a response generator coupled to the rules engine, the response generator configured to generate a query response based on a content storage search via a semantic index of said selected information retrieval technology, the response generator configured to display the generated query response as an answer to the query.

24. (Currently Amended) The system of claim 23, further comprising matching ones of the elements against concepts stored in a multi-layered concept repository to produce the conceptual annotations.

25. (Currently Amended) The system of claim 23, wherein the action specifies at least one of the elements and an associated annotation ~~one or more of the elements and the annotations~~ as keys used to access the semantic index.

26. (Currently Amended) The system of claim 23, further comprising associating, via a regular expression language specifying the first condition of the corresponding rule, a plurality of the elements and the annotation ~~annotations~~ with a concept in a multi-layered concept repository, wherein the action specifies the concept as a key used to access the semantic index.

27. (Currently Amended) The system of claim 26, wherein:

- each of the rules of the rules dictionary has at least one respective condition and at least one respective action;
- the selected information retrieval technology is a first selected information retrieval technology, ~~and the at least a portion of the produced information is an initial portion of the produced information~~; and

a second one of the actions when enabled selects a second distinct one of the information retrieval technologies, and the second selected information retrieval technology is configured to supply a managed answer to the query as a subsequent portion of the produced information.

28. (Currently Amended) The system of claim 27, wherein a third one of the actions when enabled provides a bias requirement, and wherein the response generator is configured to selectively display the query answer produced information based on the bias requirement.

29. (Cancelled)

30. (Previously Presented) The system of claim 27, wherein the managed answer is specified via the one of the rules having the second action.

31. (Cancelled)

32. (Previously Presented) The system of claim 23, wherein the language analysis module is further configured to process the content storage to form the semantic index.

33. (Currently Amended) A method, comprising:
~~searching, by a computer, content storage using a key to a semantic index; prior to the searching of the content storage;~~
parsing content of a received query into elements;
associating an annotation one or more annotations with respective ones of at least some of the elements;
comparing a first condition of at least one rule from a rules dictionary against the elements and the annotation annotations;
comparing a second condition of at least one rule from the rules dictionary against peripheral information distinct from the content of the query;
selectively firing at least one action of at least one of the rules from the rules dictionary based on results of the comparisons; and
~~matching, by at least one of the rules, a plurality of the elements and the annotations to a concept representing an intent of the query content, wherein each of the plurality of the elements and the annotations corresponds to one or more words of the query content, and wherein the concept is used as the key to the semantic index used in the searching of the content storage;~~
in response to the selective firing, operating only a subset of a plurality of one or more information retrieval technologies based on the selectively fired action, said operating to produce respective information, wherein the one or more information retrieval technologies include the searching of the content storage; and
generating a query response based on said respective information and to display the generated query response as an answer to the query.
displaying the produced information.

34. (Currently Amended) The method of claim 64 [[33]], wherein the matching is via a regular expression language.

35. (Currently Amended) The method of claim 34, wherein the matching determines if at least one of the plurality of the elements and the annotation annotations shares a common ancestor in a multi-layered concept repository with a question example from the rules dictionary.

36. (Currently Amended) The method of claim 35, wherein the subset of the one of the information retrieval technologies comprises at least a first and second one of is a first one of the information retrieval technologies, and wherein selectively firing at least one action comprises selectively firing a plurality of actions, the method further comprising:

in response to a first one of the firing actions, operating the first information retrieval technology;

in response to a second one of the firing actions, operating the second a second distinct one of the information retrieval technology technologies; and

providing, via the second one of the information retrieval technology technologies, a managed answer.

37. (Currently Amended) The method of claim 36, wherein the displaying of the generated query response produced information is selectively based on at least some of the firing actions.

38. (Currently Amended) The method of claim 37, wherein the displaying of the generated query response produced information is selectively based on a bias requirement.

39. (Previously Presented) The method of claim 33, wherein the comparisons are via a regular expression language.

40. (Currently Amended) The method of claim 39, wherein the associating is, at least in part, via a multi-layered concept repository producing conceptual ones of the annotations.

41. (Currently Amended) The method of claim 40, wherein selectively firing at least one action comprises selectively firing a plurality of actions, and wherein at least one of the firing actions specifies at least one of the elements and an associated annotation one or more of the elements and the annotations as additional keys used for the searching of the content storage.

42. (Previously Presented) The method of claim 33, wherein selectively firing at least one action comprises selectively firing a plurality of actions, and the method further comprises:
determining a respective relevancy of each of the firing actions; and
selectively performing each of the firing actions based upon the respective relevancy.

43. (Currently Amended) The method of claim 42, wherein the respective relevancy of a particular one of the firing actions is based on the ones of the elements and the annotation annotations that contributed to the respective results of the comparisons.

44. (Currently Amended) An apparatus article of manufacture including a computer-readable memory device medium having instructions stored thereon that, in response to execution by a computing device, cause the computing device to perform operations comprising:
parsing content of a received query into elements;
associating an annotation one or more annotations with respective ones of at least some of the elements;
comparing a first condition of at least one rule from a rules dictionary against the elements and the annotation annotations;
comparing a second condition of at least one rule from the rules dictionary against peripheral information distinct from the content of the query;
selectively firing at least one action of at least one of the rules from the rules dictionary based on respective results of the comparisons;
in response to at least one of the firing actions, operating a subset of one or more information retrieval technologies based on the selectively fired action to produce respective information; and
matching, via at least one of the rules from the rules dictionary, a plurality of the elements and the annotations to a concept representing an intent of the query content, wherein

each of the plurality of the elements and the annotations corresponds to one or more words of the query content;

searching content storage using the concept as a key to a semantic index as a part of one of the information retrieval technologies; and

displaying the information;

generating a query response based on said respective information and to display the generated query response as an answer to the query.

45. (Currently Amended) The apparatus article of manufacture of claim 65 [[44]], wherein the matching utilizes a regular expression language.

46. (Currently Amended) The apparatus article of manufacture of claim 45, wherein the operations further comprise determining if at least one of the plurality of the elements and the annotation annotations shares a common ancestor in a multi-layered concept repository with a question example of the at least one of the rules.

47. (Currently Amended) The apparatus article of manufacture of claim 46, wherein the subset one of the information retrieval technologies comprises a first information retrieval technology and a second information retrieval technology is a first one of the information retrieval technologies, wherein selectively firing at least one action comprises selectively firing a plurality of actions, and the operations further comprise:

in response to a first one of the firing actions, operating the first information retrieval technology;

in response to a second one of the firing actions, operating a second distinct one of the information retrieval technologies; and

providing, via the second one of the information retrieval technologies, a managed answer.

48. (Currently Amended) The apparatus article of manufacture of claim 47, wherein the displaying operates selectively based on at least some of the firing actions.

49. (Currently Amended) The apparatus article of manufacture of claim 48, wherein the operations further comprise providing, via the at least some of the firing actions, a bias requirement, and wherein the displaying operates selectively based on the bias requirement.

50. (Currently Amended) The apparatus article of manufacture of claim 44, wherein the comparisons utilize comparison utilizes a regular expression language.

51. (Currently Amended) The apparatus article of manufacture of claim 50, wherein the associating utilizes a multi-layered concept repository to produce a conceptual annotation conceptual ones of the annotations.

52. (Currently Amended) The apparatus article of manufacture of claim 51, wherein at least one of the firing actions specifies at least one of the elements and an associated annotation one or more of the elements and the annotations as additional keys used for the searching of the content storage.

53. (Currently Amended) The apparatus article of manufacture of claim 44, wherein the operations further comprise:

determining a respective relevancy of each of at least some of the firing actions; and
selectively performing each of the at least some of the firing actions based upon the respective relevancy.

54. (Currently Amended) The apparatus article of manufacture of claim 53, wherein the respective relevancy of a particular one of the firing actions is based on the ones of the elements and the annotation annotations that contributed to the respective results of the comparison that selectively fired the particular firing action.

55. (Currently Amended) The method of claim 33, further comprising:
prior to receiving the query, establishing the content storage during an indexing mode by importing structured content and/or unstructured content into the content storage;

using the action selectively fired by the rules to define a search criteria including the concept; and

using the search criteria when searching the content storage as at least a part of the subset of one or more information retrieval technologies.

56. (Currently Amended) The method of claim 33, wherein selectively firing at least one action comprises selectively firing a plurality of actions, the method further comprising:

specifying weightings via the actions selectively fired by the rules;

determining relevance to the query content of individual documents ~~in the information~~ according to the weightings; and

displaying the documents according to the relevance;

wherein the rules of the rules dictionary identify both the concept representing the intent of the query content to be addressed in the information and the weightings determining the relevance of the documents in the information.

57. (Currently Amended) The method of claim 33, wherein the particular one of the information retrieval technologies includes at least one selected from the group comprising ~~include one or more~~ of keyword searching, document-level relevance-based searching, and ontology-based searching.

58. (Previously Presented) The system of claim 23, wherein the peripheral information includes data from a particular user profile that is preset prior to generation of the query.

59. (Previously Presented) The system of claim 58, wherein the user profile specifies prior queries submitted by a respective user of the particular user profile.

60. (Previously Presented) The system of claim 23, wherein the peripheral information includes a time that the query was initiated.

61. (Previously Presented) The system of claim 23, wherein the peripheral information includes session information or web page information.

62. (Previously Presented) The system of claim 23, wherein the rules engine is configured to perform the second comparison prior to performing the first comparison.

63. (Previously Presented) The system of claim 62, wherein the rules engine is configured to bypass the first comparison conditionally according to the result of the second comparison, and if the first comparison is bypassed, selectively enable the action based only on the result of the second comparison.

64. (New) The method of claim 33, further comprising:
matching, by at least one of the rules, a plurality of the elements and the annotation to a concept representing an intent of the query content, wherein each of the plurality of the elements and the annotation corresponds to a word of the query content; and
using the matched concept as a key to search a semantic index.

65. (New) The apparatus of claim 44, wherein the operations further comprise:
matching, via at least one of the rules from the rules dictionary, a plurality of the elements and the annotation to a concept representing an intent of the query content, wherein each of the plurality of the elements and the annotation corresponds to a word of the query content; and
using the matched concept as a key to search a semantic index.